# Global Low Voltage Electric Drives - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts (2025 - 2030)

Market Report | 2025-04-28 | 120 pages | Mordor Intelligence

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**Report description:**

The Global Low Voltage Electric Drives Market is expected to register a CAGR of 4.3% during the forecast period.

Key Highlights
- Low voltage drives are used in low and high-power applications to control the torque and speed of alternating current motors. Because of the low cost, quick availability, and reduced size, as well as the ability to boost process productivity throughout industrial processes, the business scenario will spread. Furthermore, high-efficiency system requirements and large energy savings will accelerate the product landscape.
- Due to the interruptions in supply chain logistics and the temporary shutdown of manufacturing facilities, the COVID-19 pandemic has only had a marginal impact on the low voltage drive market. The strict restrictions taken by regional governments to restrict international trade and enforce national lockdowns have had a negative impact on product demand. The dynamics of the industry have been somewhat counterbalanced by the increased attention paid to emergency sectors like healthcare facilities and the adoption of new combat strategies by the major competitors.
- Furthermore, with the growing adoption of energy-efficient electrical equipment in the commercial and industrial sectors, the low voltage drive market for the microdrives segment is also predicted to experience significant growth. Product penetration will be positively impacted by the expanding use of these systems for conveyors, fans, mixers, pumps, and integrated/machinery applications, as well as their essential characteristics, which include a variety of stepless and smooth speed and torque control features.
- The factors fueling the market's expansion include the rise in industrialization and urbanization in emerging nations, the rise in industrial automation, and the expanding need for energy-efficient motors. Additionally, several characteristics of low voltage drives, including high safety standards, improved quality and productivity, positive energy balance, and reduced energy consumption, significantly boost the market for low voltage drives.

- The drive market is also predicted to increase shortly due to stringent motor efficacy standards and regulations and the upgrading and replacement of outdated equipment.

## Low Voltage Electric Drives Market Trends

### Automotive Industry is Expected to Boost the Demand

- The automotive low-voltage drive market will be boosted by the continuing expansion of automotive production capacity and rising energy consumption in new manufacturing facilities in emerging nations. The consumer focus has switched toward adopting these drives due to the paradigm shift toward acceptance of electric autos among end-users, in conjunction with the growing demand to increase vehicle safety.
- Furthermore, increased government emphasis on expanding e-mobility cars by their uses in tough areas and their capacity to withstand high shock loads and vibration levels have boosted product penetration. Consumers expect more from electric vehicles, and increasing the voltage is the simplest way to improve electric drives' power. This merely exacerbates the problem of electrical safety.
- Volabo, an Ansys Startup Program member, proposes a low-voltage electric drive that runs on only 48 volts, a safe-to-touch voltage. Volabo also employs an intelligent stator cage drives (ISCAD) system. The configuration replaces the most expensive component of an electric motor, copper winding, with inexpensive and simple-to-manufacture aluminum bars.
- Furthermore, nanoFlowcell has developed technology that enables low-voltage electric drive in a freestanding system without the use of huge supercapacitors. This advancement will be exhibited in the Quant 48Volt variant. The nanoFlowcell's capacity to deliver so much power from such a low-voltage system contributes to the design's inherent safety.

### Asia-Pacific is Expected to Dominate the Low Voltage Drives

- The Asia-Pacific Low Voltage Drives market is expected to grow rapidly between 2022 and 2027 due to the implementation of energy efficiency rules and the rising demand for optimum energy solutions. The market landscape would be augmented by growing industrialization investments and a thriving real estate sector. Several government initiatives to expand EV coverage will increase EV accessory demand, further increasing market demand.
- DC low voltage drives are expected to expand significantly through 2027, owing to rising consumer disposable income and urbanization rates, mainly in emerging countries. Due to stringent building emissions regulations, the continuing repair and retrofitting of electrical networks will increase industrial demand. The product has several major advantages, including reduced maintenance, increased efficiency, and ease of implementation, which help to accelerate the market landscape.
- This expansion is due to attractive government incentives for creating sustainable transportation and other industry activities. Continuous product innovation and continued technical expansion across the electrical infrastructure will drive market growth. Also, this can be due to the rise in demand for oil & gas, power, and food processing in the region.
- ABB, for instance, introduced flameproof (FLP) low voltage motors in India in January 2022. It operates safely and reliably in explosive situations and is available in IE2 and IE3 efficiency classes. The offering includes remote monitoring, which expands the company's product line in the country.

## Low Voltage Electric Drives Industry Overview

The global low voltage electric drives market is highly fragmented due to several global and regional players. The market trends

will be shaped by inorganic growth initiatives, mergers and acquisitions, and ongoing technical improvements. ABB, Siemens, Beckhoff Automation, Emerson Electric Co., Eaton, and Hitachi, Ltd. are some of the significant players in the field.

- November 2021 - Innovative shaft generators with a Power-Take-Off (PTO) solution, consisting of novel drive systems and permanent magnet technology, will be part of ABB's equipment package for Himilaya Shipping's ultra-large bulk carriers. Low-voltage electric drives and transformers, as well as engineering, project management, and commissioning services, are all included in ABB's comprehensive scope of supply for the Himalaya Shipping vessels.

Additional Benefits:

- The market estimate (ME) sheet in Excel format
- 3 months of analyst support

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